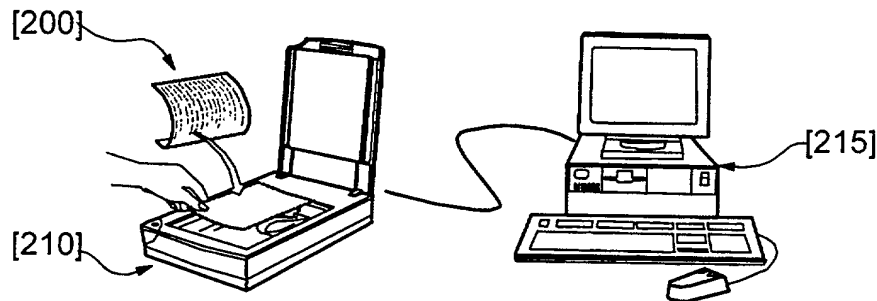


Figure 1



[230] Message Authentication Codes: A  
[240] message authentication code  
(MAC), also known as a data  
authentication code (DAC), is a  
one-way hash function with the  
addition of a secret key. The  
hash value is a function of both  
the pre-image and the key. The  
theory is exactly the same as  
hash functions, except only  
someone with the key can verify  
the hash value. (Excerpt from  
'Applied Cryptography' by Bruce  
Schneier, 2nd Ed., Wiley, 1996).

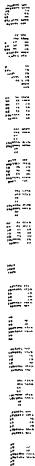
[220]

[250]

[265] Instead of manually scanning documents, electronically scanned image bitmap files consist of lines that are created independently. These scanned files do not yield useful information to extract appropriate data, optical character recognition (OCR),

[260] [255]

Figure 2

[illegible]

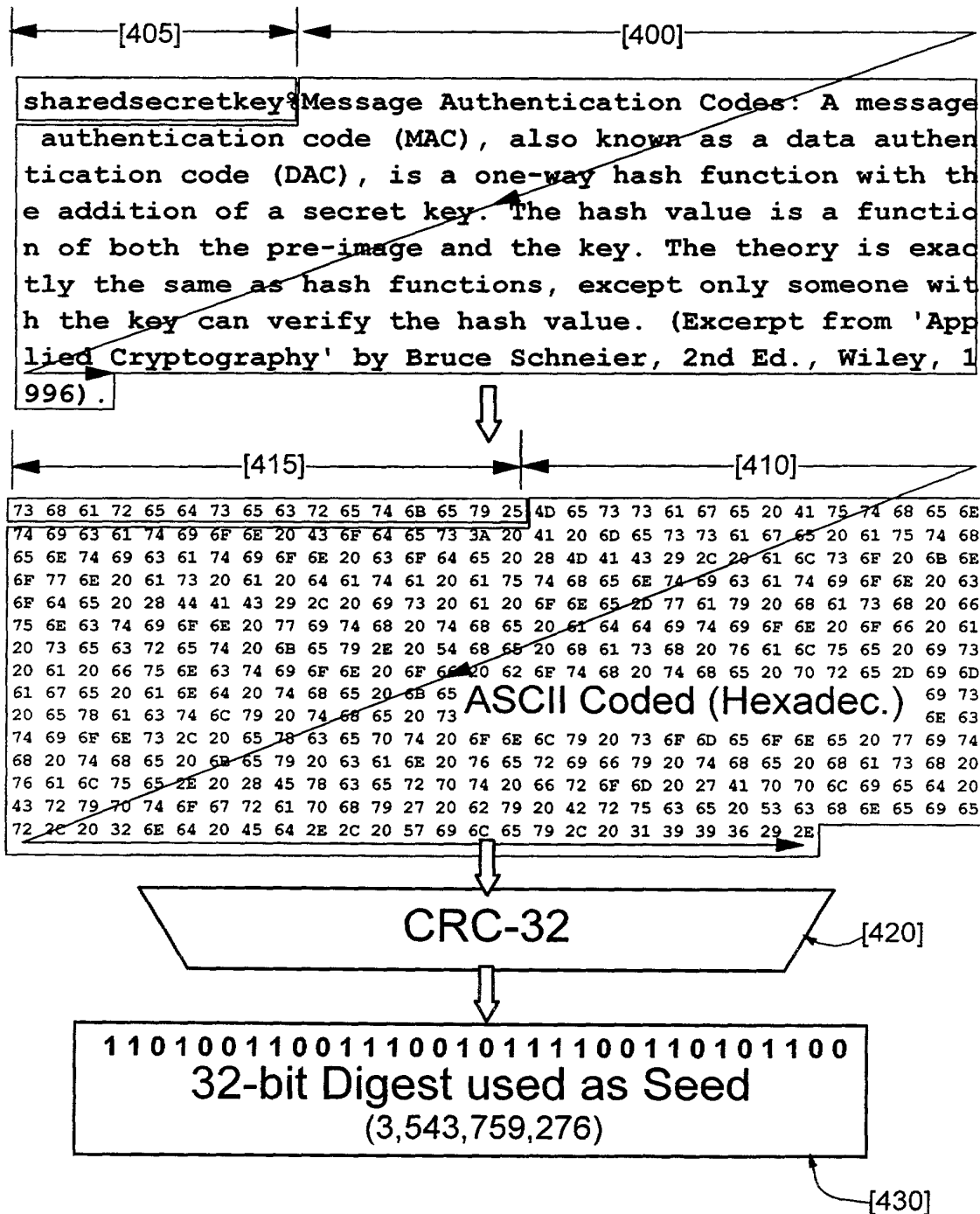


Figure 4

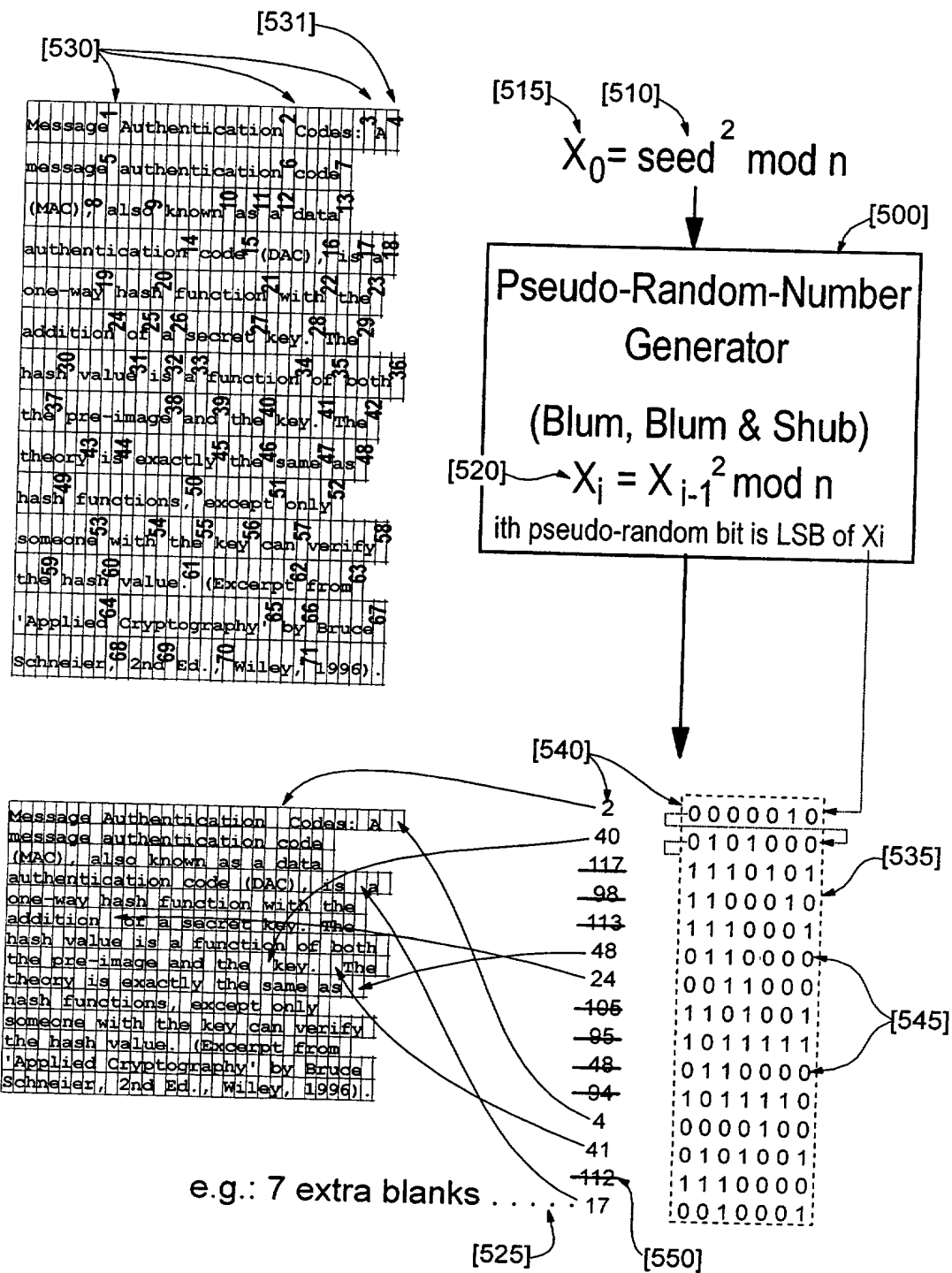


Figure 5